

It will be understood that each of the elements described above, or two or more together, also may find a useful application in other types of constructions differing from the types described above.

While the invention has been illustrated and described as embodied in an IC used in a  
5 auto ID reader and single or dual radio frequency transceiver in a module, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various  
10 applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention and, therefore, such adaptations should and are intended to be comprehended within the meaning and range of equivalence of the following claims.

What is claimed as new and desired to be protected by Letters Patent is set forth in  
15 the appended claims.

I claim:

1. A RF communications module, comprising:
  - a) a support having a predetermined form factor;
  - 20 b) a first radio frequency (RF) transceiver supported by the support, and operative for transmitting the data according to first communications standard;

c) a second radio frequency (RF) transceiver supported by the support, and operative for transmitting the data according to second communications standard; different from the first standard; and

d) a common baseband processor coupled to said first and second transceivers for processing a baseband signal in each transceiver.

2. The data collection module of claim 1, wherein the form factor occupies a space of approximately 1-1/2 inch x 1 inch x ¼ inch.

3. The module of claim 1, wherein the first RF transceiver includes a first antenna, a second antenna, and a selection circuit for selecting one of the antennas for use with the first RF transceiver.

4. The module of claim 1, further comprising an auto ID reader supported by the support, and operative for sensing encoded data on a record carrier positioned near the reader and for reading the encoded data

5. The module of claim 4, wherein the support includes a printed circuit board on which electrical circuit components for the RF transceivers and auto ID reader are mounted.

6. The module of claim 4, wherein the RF transceivers and auto ID reader are supported within the predetermined form factor.

7. The module of claim 4, wherein the RF transceiver and the auto ID reader generate digital signals corresponding to the RF demodulated data and the auto ID encoded data respectively, and wherein the IC receives and processes each of the digital signals using a single fast Fourier transform circuit.

5 8. A module as defined in claim 7, wherein the first transceiver uses an OFDM communications standard, and the second receiver used a WCDMA communications standard.

10 9. A module as defined in claim 8, where the fast Fourier transform circuit acts as a receiver circuit portion for the WCDMA transceiver, and as a transmitter circuit portion for the OFDM transceiver.

15 10. A module as defined in claim 4, wherein the auto ID reader is an imager for reading a two dimensional image of a field of view.

20 11. A mobile computer collection terminal, comprising:  
a) a hand-held housing;  
b) a support supported by the housing and having a predetermined form factor; and  
c) a first and a second radio frequency (RF) transceiver supported by the support, and operative for communicating with a first and second RF base stations respectively associated with a first and second computer networks for transferring data between the terminal and the network.

11. A terminal as defined in claim 10, further comprising  
an auto ID reader supported by the support, and operative for sensing encoded  
data in a data carrier and for reading the encoded data.

5 12. The data collection terminal of claim 10, wherein the form factor occupies a  
space for an SE 1200 scan engine.

13. The data collection terminal of claim 11, wherein the support includes a  
printed circuit board on which electrical circuit components for the RF transceiver and auto  
10 ID readers are mounted.

14. The data collection terminal of claim 10, wherein the RF transceiver includes  
a first antenna, a second antenna, and a circuit for modulating and demodulating the RF  
15 signal.